

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-009149**Date Inspected:** 22-Sep-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Liu Fa Wen**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG Crossbeams**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance Inspector (QA) Steve Hall was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island, in Shanghai, China. QA observed and/or found the following:

**OBG CROSS BEAM CB1**

This QA observed that no significant work was being performed on this crossbeam during the time QA was present.

**OBG CROSS BEAM CB2**

This QA observed that no significant work was being performed on this crossbeam during the time QA was present.

**OBG CROSS BEAM CB3**

This crossbeam has been loaded on the ship.

**OBG CROSS BEAM CB4**

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This QA observed that no significant work was being performed on this crossbeam during the time QA was present.

### OBG CROSS BEAM CB5

This QA observed that no significant work was being performed on this crossbeam during the time QA was present.

### OBG CROSS BEAM CB6

This QA observed that no significant work was being performed on this crossbeam during the time QA was present.

### OBG CROSS BEAM CB7

This QA observed that this crossbeam has been removed from bay one and relocated outside behind bay thirteen. No other significant work was observed on this crossbeam during the time QA was present.

### OBG CROSS BEAM CB8

During random Visual inspection of this crossbeam this QA observed the following deficiencies:

1. Base metal gouge approximately 5mm deep near weld identified as FB204-020-053.
2. Snipe hole welded over at the intersection of welds identified as CB202G-017-002 and FB202G-017-159.

This QA notified ABF inspector identified as Mr. Chang Bao Qian and ZPMC QC inspector identified as Mr. Liu Chuan Gang of the above mentioned issues. Both inspectors verified the deficiencies and marked them on the material for repair. Mr. Liu informed this QA that ZPMC would perform the repairs per the applicable approved procedures. See attached pictures.

### OBG CROSS BEAM CB9

This QA observed ZPMC qualified welding personnel identified as 220688 perform FCAW welding on weld joint identified as CB202A-009-002. ZPMC QC identified as Mr. Liu Chuan Gang was present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-T-2232-Tc-U4b-F.

This QA observed ZPMC qualified welding personnel identified as 048625 perform FCAW welding on weld joint identified as FB205-024-030. ZPMC QC identified as Mr. Liu Chuan Gang was present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-T-2233-B-U2-F.

### OBG CROSS BEAM CB10

This QA observed that no significant work was being performed on this crossbeam during the time QA was present.

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### OBG CROSS BEAM CB11

This QA observed ZPMC qualified welding personnel identified as 217185 perform FCAW welding on weld joint identified as CB202G-032-062. ZPMC QC identified as Mr. Zheng Zhi Wei was present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-T-2233.

This QA observed ZPMC qualified welding personnel identified as 205390 perform FCAW welding on weld joint identified as CB202G-029-062. ZPMC QC identified as Mr. Zheng Zhi Wei was present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-T-2233.

This QA observed ZPMC qualified welding personnel identified as 215250 perform FCAW welding on weld joint identified as CB202G-031-052. ZPMC QC identified as Zheng Zhi Wei was present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-T-2233.

This QA observed ZPMC qualified welding personnel identified as 204342 perform FCAW welding on weld joint identified as CB202G-029-052. ZPMC QC identified as Mr. Zheng Zhi Wei was present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-T-2233.

### OBG CROSS BEAM CB12

This QA observed that no significant work was being performed on this crossbeam during the time QA was present.

### OBG CROSS BEAM CB13

This QA observed that no significant work was being performed on this crossbeam during the time QA was present.

### OBG CROSS BEAM CB14

This QA observed that no significant work was being performed on this crossbeam during the time QA was present.

### OBG CROSS BEAM CB15

This QA observed that ZPMC Ultrasonic Testing (UT) technicians have performed and accepted the UT on approximately 25% of the following welds on the deck panel: CB202B-015-001, 003 and 004.

This QA observed ZPMC personnel fitting and tack welding the bottom panel splice identified as CB202C-015-004.

This QA observed that ZPMC has performed the FCAW root pass on bottom panel splice weld identified as CB202C-015-001.

### OBG CROSS BEAM CB16

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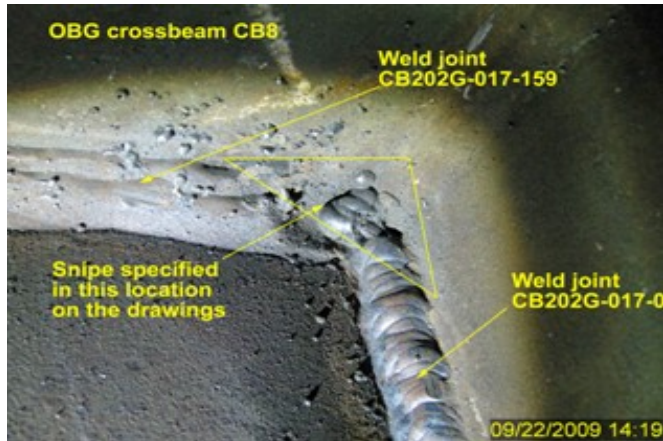
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This QA observed that no significant work was being performed on this crossbeam during the time QA was present.

Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.



## Summary of Conversations:

As mentioned above.

## Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang (15000422372), who represents the Office of Structural Materials for your project.

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**Inspected By:** Hall,Steven

Quality Assurance Inspector

**Reviewed By:** Prue,Erik

QA Reviewer